

1/7

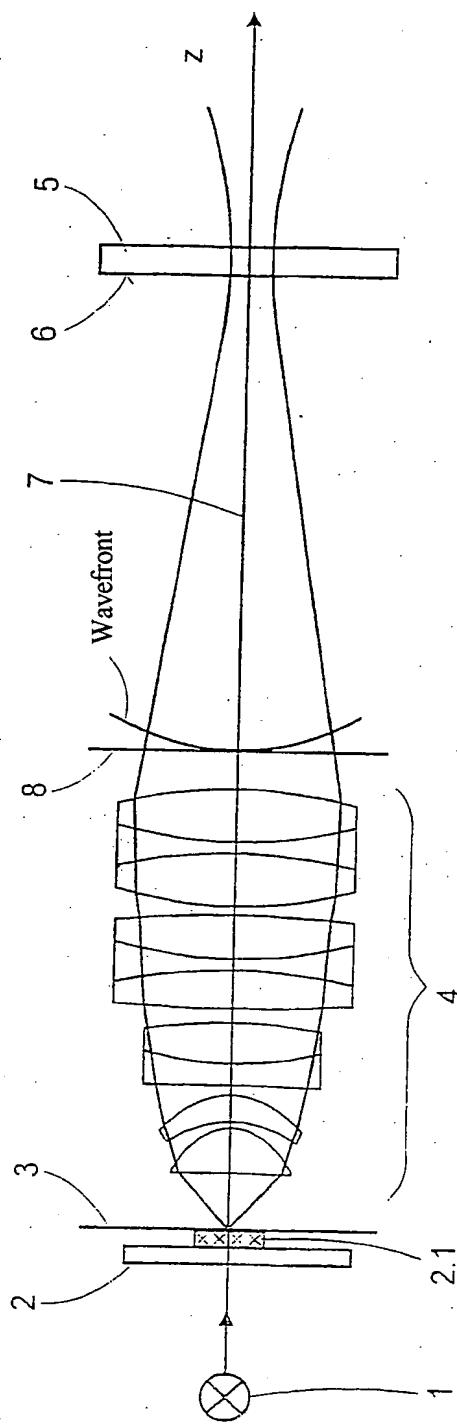


Fig.1

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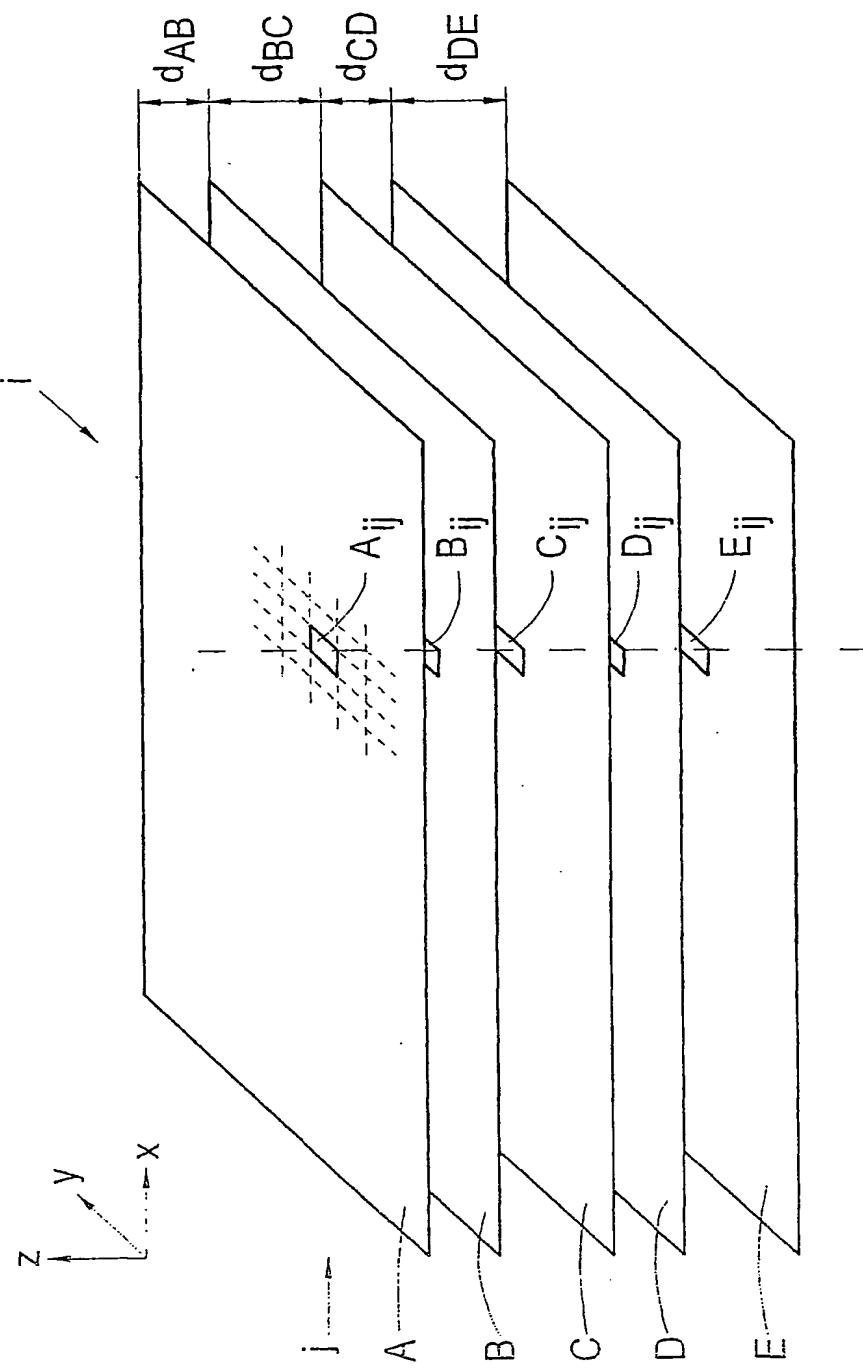


Fig.2

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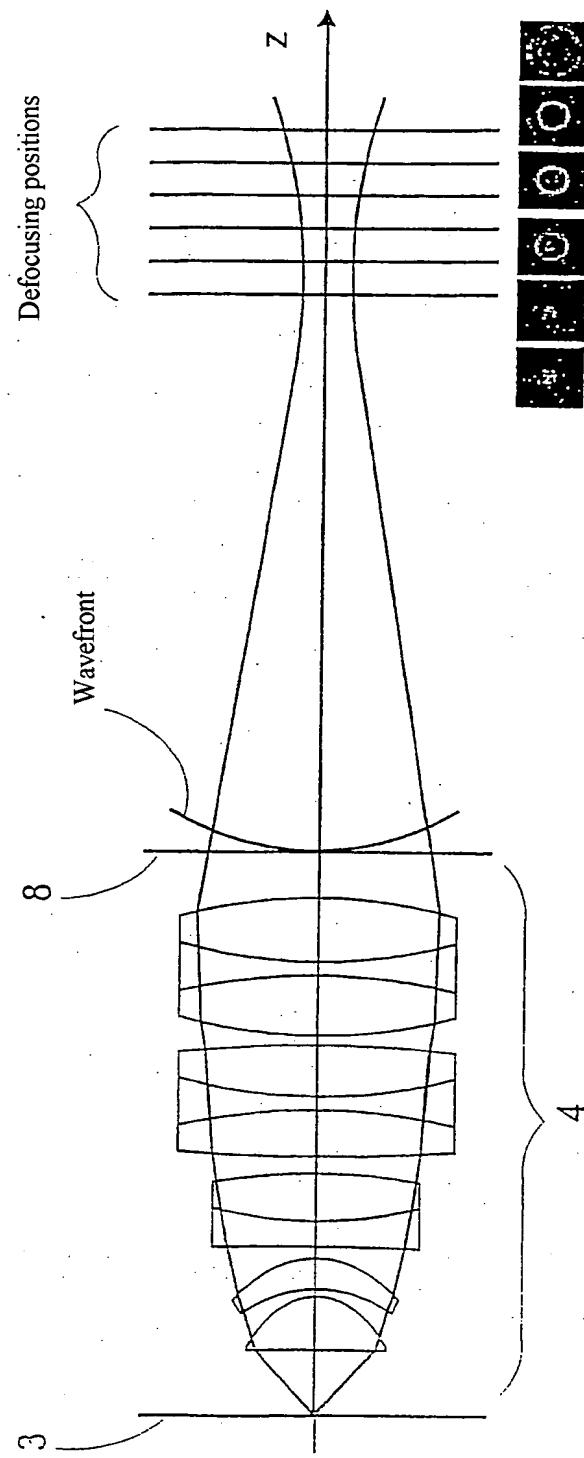


Fig.3

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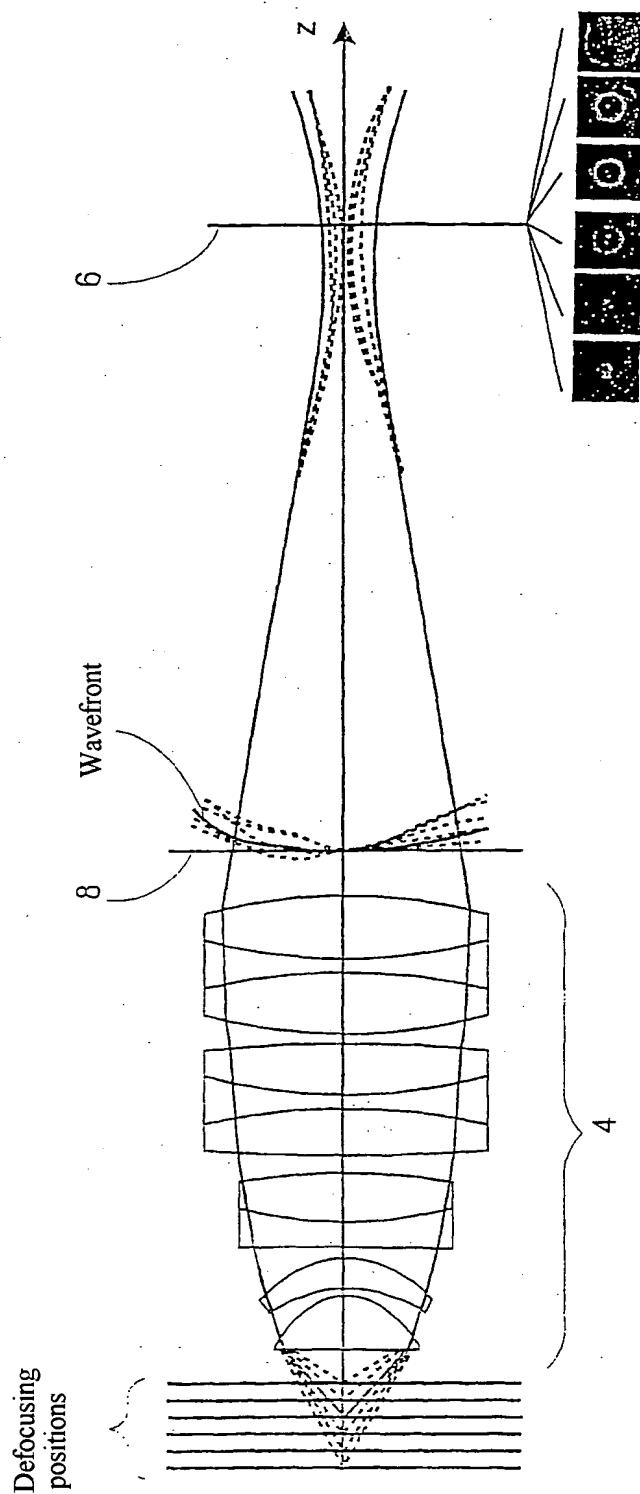


Fig. 4

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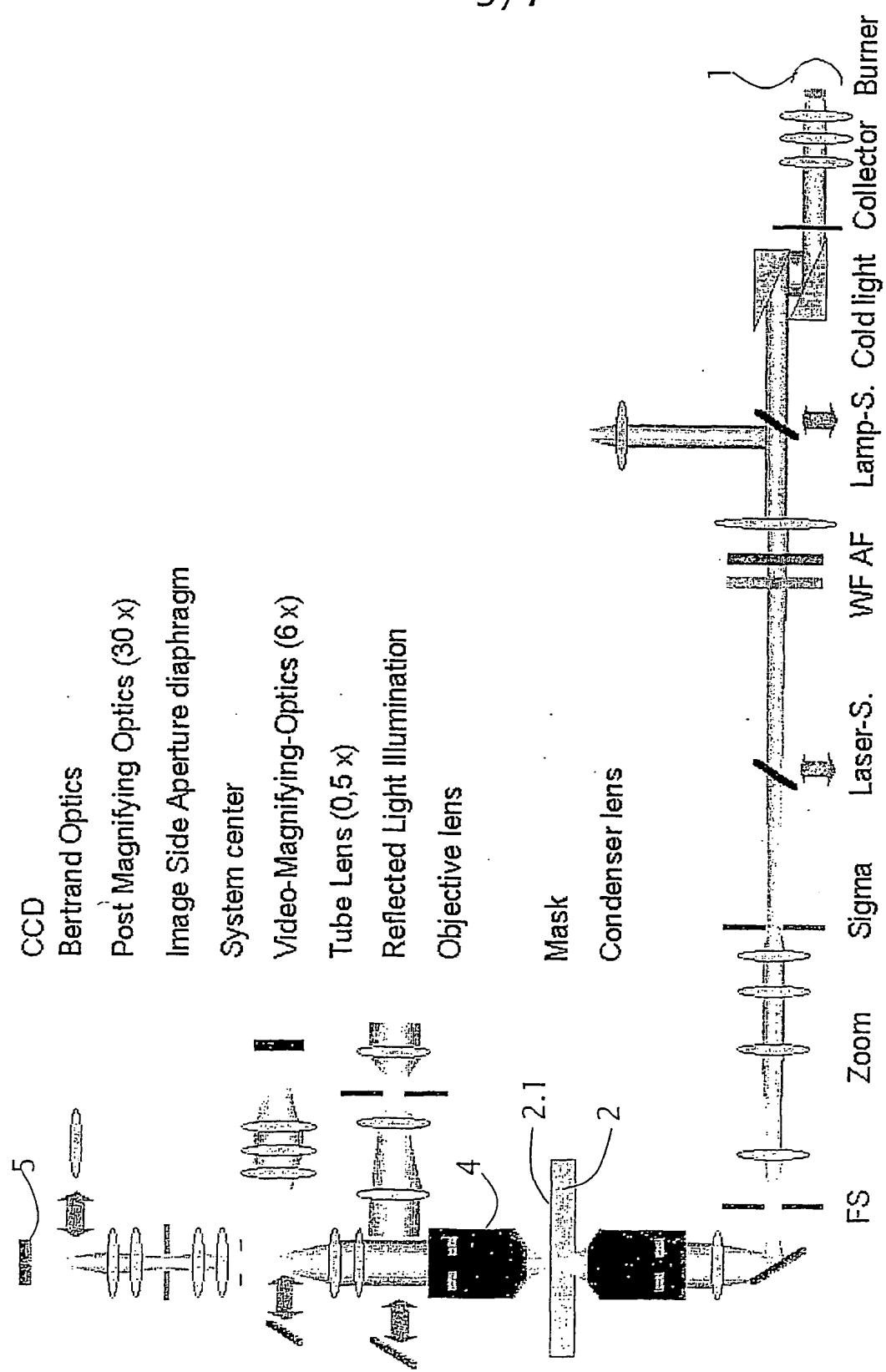


Fig.5

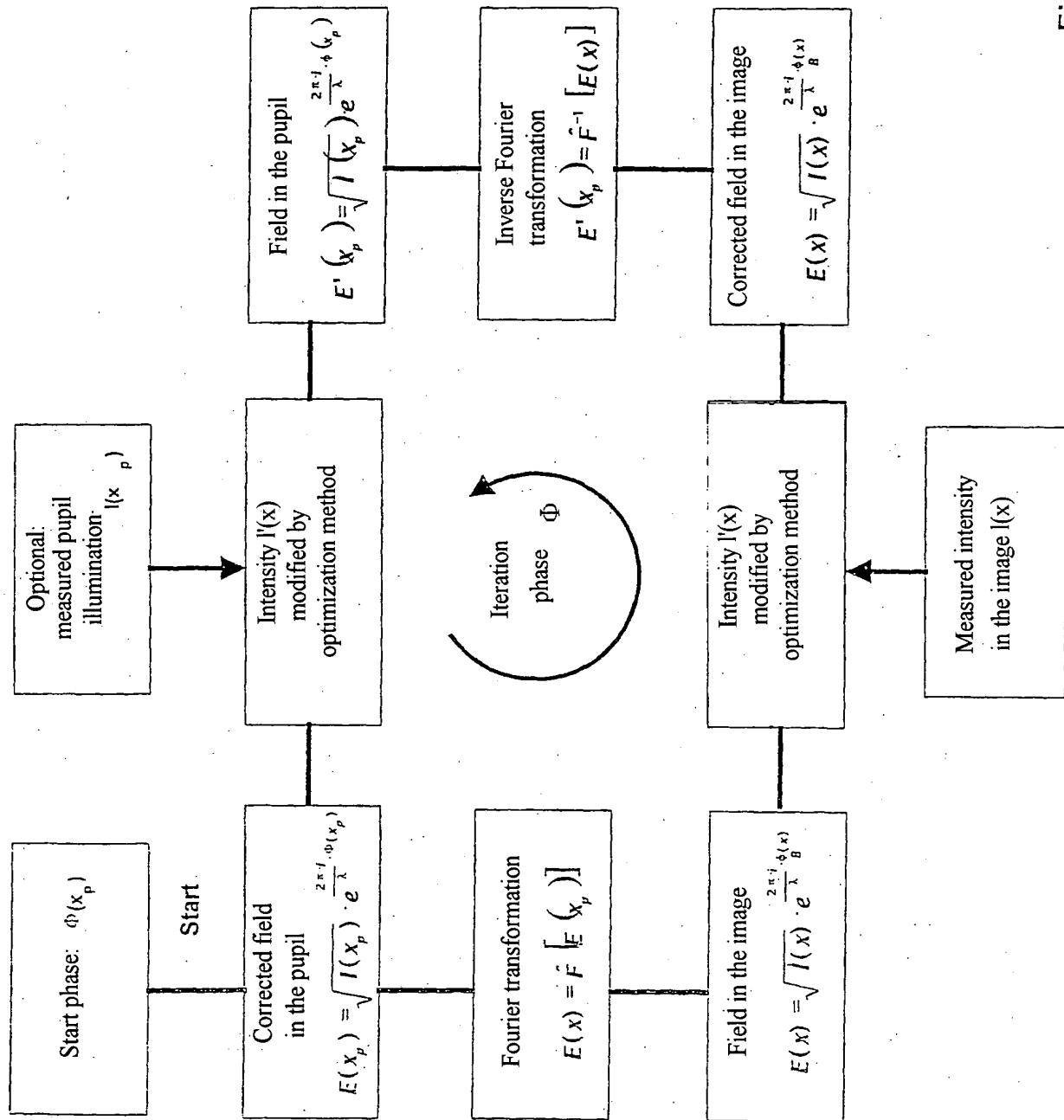


Fig. 6

Example for Zernike evaluation in an AIMS fab system at 248 nm:

Indexing after fringe scaling	Physical meaning	Analytic without object space defocusing	Iterative without object space defocusing	static Zernike value	Iterative with object space defocusing
		g	Linear coefficient in object space defocusing		
1		0	0	0	0
2		0,00851	0,02387	0,0351	0,12928
3		0,01144	-0,02163	-0,02176	-0,80338
4	Defocusing	-0,06169	-0,03453	-0,0377	-2,15459
5	Astigmatism	-0,02603	-0,04841	-0,04918	0,24001
6	Astigmatism	-0,03546	0,02668	0,05723	-0,26836
7	Coma	-0,06889	-0,08017	-0,04555	0,9295
8	Coma	-0,05611	0,07481	0,05676	-0,23595
9	Spherical	-0,07892	0,00781	-0,01562	-7,01915
10	Trefoil	0,01159	-0,03469	-0,00218	-13,8727
11	Trefoil	0,02109	0,0139	-0,02059	0,29738
12	2nd order Astigmatism	-0,00369	0,07178	0,01328	0,80823
13	2nd order Astigmatism	-0,04723	-0,00157	0,02011	5,50041
14	2nd order coma	-0,054	-0,11813	0,04267	0,32948
15	2nd order coma	-0,06647	0,03985	0,0483	0,55088
16	2nd order spherical aberration	-0,09815	0,13668	-0,12642	-0,15332
17	Quadrafoil	0,0002	-0,00802	-0,00327	-7,96513
18	Quadrafoil	-0,0086	0,06882	0,03479	0,47989
19	2nd order trefoil	0,04277	0,10738	0,03978	1,77909
20	2nd order trefoil	0,02762	-0,03653	0,03893	-0,87237
21	3rd order spherical aberration	-0,00675	-0,02135	-0,02458	6,92178
22	3rd order spherical aberration	-0,06507	-0,03913	-0,06061	0,4165
23	3rd order coma	-0,02945	0,21074	-0,10287	-1,03012
24	3rd order coma	-0,08353	-0,0928	-0,07187	-1,20287
25	3rd order spherical aberration	-0,07074	-0,07812	0,20921	0,23704
Defocusing in image space /mm		Residual	Residual	Residual	
Peak-to-Valley residuals for all focus planes		0,13524	0,0644	0,08484	
		0,11442	0,04932	0,05203	
		0,09006	0,03805	0,03563	
		0,07737	0,04418	0,0921	
		0,06364	0,06757	0,15666	
		0,096146	0,052704	0,084252	
RMS residuals for all focus planes		0,03039	0,0201	0,01379	
		0,02542	0,01774	0,01162	
		0,02118	0,01561	0,01062	
		0,01825	0,01477	0,01269	
		0,01677	0,01716	0,02066	
		0,022402	0,017076	0,013876	

Fig.7